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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/603,750	06/26/2003	Toru Inoue	0666.1810001	3802

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EXAMINER

LE, DAVID D

ART UNIT	PAPER NUMBER
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3681

DATE MAILED: 05/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/603,750

Applicant(s)

INOUE ET AL.

Examiner

David D. Le

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 26 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-6 and 10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 June 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☒ Certified copies of the priority documents have been received in Application No. 09/942,556.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 6/26/03.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

1. This is the first Office action on the merits of Application No. 10/603,750, filed on 26 June 2003. Claims 1-6 and 10 are pending.

### Documents

2. The following documents have been received and filed as part of the patent application:
  - Information Disclosure Statement, received on 06/26/03

### *Claim Objections*

3. Claims 2 and 6 are objected to because of the following informalities:

#### Claim 2:

- Line 2, the word “displaced” should be --disposed--.

#### Claim 6:

Lines 4-5 recite the limitation “*a pair of left and right axles connected with each other in a differential manner by said differential;*” then, lines 10-12 recite the limitation “*a differential locking slider which can switch between a differential mode for connecting said left and right axles with each other in a differential manner and a differential-locking mode for integrally connecting said left and right axles.*”

It appears that the above limitations contradict each other for the following reasons:

- The first mentioned limitation of claim 6 requires the pair of left and right axles to be connected with each other in a differential manner at all time.

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- The second mentioned limitation of claim 6 requires the pair of left and right axles to be connected with each other in a differential manner only when the differential locking slider switches to the differential mode.

Appropriate correction is required.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. **Claims 1-6 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over U. S. Patent No. 6,634,446 to Ima in view of U. S. Patent No. 5,617,764 to Komura et al.**

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or

(3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). This rejection might also be overcome by showing that the reference is disqualified under 35 U.S.C. 103(c) as prior art in a rejection under 35 U.S.C. 103(a). See MPEP § 706.02(l)(1) and § 706.02(l)(2).

Claims 1-6 and 10:

*Ima* (i.e., Figs. 1-2; column 3, line 19 – column 6, line 64) discloses a multi-wheel drive vehicle comprising:

- An engine (3) having a crank shaft (6);
- A transmission (13);
- A transmission input shaft (5 and 37);
- A continuously variable transmission assembly (7) including a split pulley (36) and a belt (i.e., column 3, lines 59-60);
- A transmission output shaft (41);
- A pair of left and right rear axles (8);
- Wherein bearings are provided to support outward portions of left and right axles (i.e., Fig. 1);
- A differential gear assembly (32) having a differential locking slider, which can switch between a differential mode and a differential-lock mode (i.e., column 5, lines 5-15);

- A transmission housing (31) including the portions that housing left and right axles;
- A wet-type disc brake device (22 or 100);
- A plurality of friction discs (110 and 111);
- A pressure member (113);
- Wherein the wet-type brake device is disposed in the bowl-like shaped portion of the housing between the left and right axles;
- Wherein an arm for operating the wet-type disc brake is disposed outside the bowl-like shaped portion of the housing (i.e., column 5, lines 16-20);
- A drive train (35) which can switch the rotational direction of said output shaft in relation to the rotational direction of said input shaft;
- A prime rotary object (51);
- A follower rotary object (53); and
- A governor (34).

*Ima* does not explicitly disclose:

- A pair of left and right transmission housing parts; and
- A pair of left and right axle housings mounted onto left and right faces of the transmission housing.

*Komura* (i.e., Fig. 1; column 4, line 45 – column 7, line 55), on the other hand, teaches a drive device comprising:

- A transmission housing (2) having a pair of left and right transmission housing parts (2L and 2R); and
- A pair of left and right axle housings (49) mounted onto left and right faces of the transmission housing (2).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Ima transmission housing (31) such that the housing comprises left housing part, a right housing part, a left axle housing and a right axle housing, in view of *Komura*, for the benefit of good machinability and assemblability.

### ***Double Patenting***

6. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

7. Claims 1 and 6 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-3 of U.S. Patent No. 6,616,563. Although the conflicting claims are not identical, they are not patentably distinct from each other because the present claim 1 recites the limitation "a we-type disc brake device provided around a portion of said left and right axles covered by said left and right axle housings", which the patented claim 1 recites "a friction disc provided on at least one of said left and right axles and housed by said axle housing".

### ***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Magni (U. S. Patent No. 5,337,853) teaches a differential-brake group for vehicle driving axles as shown in Fig. 2.
- German Patent No. DE 3513426 A1 teaches a drive train as shown in Fig. 1.




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Any inquiry concerning this communication or earlier communications from the examiner should be directed to David D. Le whose telephone number is 571-272-7092. The examiner can normally be reached on Mon-Fri (0700-1530).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles A Marmor can be reached on 571-272-7095. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
ddl

  
CHARLES A. MARMOR  
SUPERVISORY PATENT EXAMINER  
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